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10/621,440	07/18/2003	Kenichi Kawaguchi	60188-536	1018

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EXAMINER	
PAN, DANIEL H	
ART UNIT	PAPER NUMBER
2183	

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/621,440	KAWAGUCHI, KENICHI	
	Examiner	Art Unit	
	Daniel Pan	2183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10-* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/536,308.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *07/18/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Claims 1-10 are presented for examination.

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

2. Claims 1-6, 8, 9,10 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-6,7 ,8,9 of prior U.S. Patent No. 6,658,560. This is a double patenting rejection.

3. Claims 1-6 correspond to patented claims 1-6, and claim 8 (claim 8 includes al limitations of current claim 7) corresponds to patented claim 7, and claims 9,10 correspond to patented clams 8,9. The claims are identical word for word. Examiner believes this not what applicant intend to claim because identical set of clams were already patented. Correction is suggested in the next response.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140

F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claim 7 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 7 of U.S. Patent No. 6,658,560. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 7 is generic to the species of invention covered by claim 7 of the patent. Thus, the generic invention is "anticipated" by the species of the patented invention. Cf., Titanium Metals Corp. v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) (holding that an earlier species disclosure in the prior art defeats any generic claim) . This court's predecessor has held that, without a terminal disclaimer, the species claims preclude issuance of the generic application. In re Van Ornum, 686 F.2d 937, 944, 214 USPQ 761, 767 (CCPA 1982); Schneller , 397 F.2d at 354. Accordingly, absent a terminal disclaimer, claim 7 is properly rejected under the doctrine of obviousness-type double patenting (see In re Goodman (CA FC) 29 USPQ2d 2010).

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1,7, 9 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The reasons are given below .

6. As to claims 1,7,9, based on the newly provided internal guidelines , claims 1,7,9 are not directed to a useful, concrete, and tangible result. For example, claims 1,7,9, could be a mere program. The evidence shows that the claimed invention may be a mere source program (see the source program in applicants specification page 10, fig.6) . Therefore, the claims can be read so broadly as to include the non-statutory subject matter. Therefore, no practical application can be found in the claim. Furthermore, no final result that is achieved can be found in the claim that is useful, concrete, and tangible.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claim 7 is rejected under 35 U.S.C. 102(a) as being anticipated by Robertazzi et al. (5,889,989)

8. As to claim 7, Robertazzi taught at least (see fig.6) :

a) a first execution unit (see the most expensive processor Nth Processor) ;

b) a second execution unit (see first processor);

c) and instruction parallelizing/executing means (see fig.6) for executing two instructions, which designate the first execution unit (Nth processor) as a target, in parallel by allocating one [609] of the two instructions (see processing blocks 607 and 609) to the second execution unit (see how the processing block reassigned to processor 1 in col.10, lines 11-32, see the overlapping of time T for parallel processing).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thusoo et al. (5,790,826) in view of Schroter (6.338,133).

10. As to claim 7, as to the claim language "execution unit", since no specific physical connection or structure of the "execution unit" has been recited, it is assumed this language is applicable to any type of unit of execution. Thusoo disclosed a parallel processing system including at least :

a)first execution unit [A-PL] (see the first pipeline unit in figs.2,4, col.2, lines 17-35, lines 58-60);

B) second execution unit [B-PL] (e.g. see the second pipeline unit in figs. 2,4, col.2, lines 17-35, lines 61-65);

C)instruction parallelizing/executing means [superscalar processor] for executing two instructions (e.g. see col.2, lines 49-51), in parallel by allocating one of the two instructions to the second execution unit (e.g. see the processing of the second instruction in second pipeline in col.2, lines 49-65).

11. Thusoo did not specifically recite his instruction parallelizing/executing means (the super scalar) designated the first execution unit (first pipe) as a target as claimed. Instead, Thusoo taught designation of the destination from the first instruction (e.g. see col.4, lines 32-47). However, Schroter disclosed an instruction processing system comprising a speculative instruction which specified a target execution unit (e.g. see col.7, lines 45-50, col.8, lines 59-64). It would have been obvious to one of ordinary skill in the art to use Schroter in Thusoo for designating an execution unit as a target as claimed because the use of Schroter could enhance the control ability of Thusoo's superscalar to accept a greater number of instruction at a given processing level, such as execution stage, thereby minimizing the delay time in the pipeline, and it could be readily achieved by defining the instruction format, such as the target filed of the instruction, of Schroter into Thusoo, such that the instructions of Thusoo would be able to recognize a specific execution unit as a target, and because Thusoo also taught that

his processor was able to dispatch the first instruction to either A pipeline or B pipeline (e.g. see col.11, lines 14-25), which was a suggestion of the need to designate an execution unit , such as pipeline A, or pipeline B, from a given instruction, and in doing so , provided a motivation.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. .

a)Saito (5,784,630) is cited for showing the background teaching of plurality of execution units (PE1, PE2);

b) Austin et al. (4,885,684) is cited for the basic teaching of reassigning task to different processor (see col.4, lines 1-5).Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Pan whose telephone number is 703 305 9696, or the new number 571 272 4172. The examiner can normally be reached on M-F from 8:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chan, can be reached on 703 305 9712, or the new number 571 272 4162. The fax phone number for the organization where this application or proceeding is assigned is 703 306 5404.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

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21 Century Strategic Plan

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